U.S. Department of Commerce, Office of Health and Consumer Goods
2005 Appliance Industry Outlook

Current Economic Indicators

Following the peaking of the stock market bubble in March 2000 and the ensuing bear market plunge and the subsequent September 11, 2001 World Trade Center attack, the Federal Reserve (Fed) in an effort to avoid a severe recession and possible deflation made several reductions in the federal funds rate from 6.5 percent in January 2001 until it reached a 46-year low of 1 percent in June 2003. This caused other interest rates such as the prime rate, mortgage, and credit card interest rates to also fall to relatively low levels. Adjusted for inflation, short-term interest rates were far below normal, actually negative in some cases. Interest rates remained at these low levels until the end of June 2004 when the Fed raised the federal funds rate by .25 percent to 1.25 percent, the first step to return interest rates to normal levels. This was followed by seven more hikes reaching 3.0 percent in May 2005. Analysts expect the Fed will continue to boost rates to avoid an outbreak of inflation.

Moving in tandem when the federal funds rate dropped were interest rates for 30-year conventional mortgages which fell from 8.5 percent in mid 2000 to 5.25 percent in mid June 2003, the lowest rate in decades. Since then, conventional mortgage rates have generally fluctuated under the 6 percent level in spite of the increases in the federal funds rate. The low mortgage rates have resulted in increased housing starts as well as increased housing prices. Housing starts, 1,568,600 in 2000, increased to 1,847,000 in 2003 and to 1,957,000 in 2004. For the first two months of 2005, housing starts averaged a strong 2.2 million annual rate. However, March housing starts dropped to 1.8 million, a decline of 17.6 percent. Since the average house has six major appliances, new housing is a substantial factor in total demand for appliances.

The national median existing home sales price increased sharply in 2004, up 8.3 percent from the year before. Tight housing supplies created a sellers market in several areas as buyers rushed in to purchase at a low mortgage rate. Sales of existing housing reached a record 6.8 million units in 2004 compared to 6.1 million units in 2003. In addition, many homeowners took advantage of the low interest rates to refinance their homes, often taking on additional mortgage debt to pay off consumer loans and/or for new purchases including remodeling with new appliances.

The unemployment rate drifted down during the year reaching 5.4 percent in December 2004. It dipped further to 5.2 percent in January before seesawing to 5.4 percent in February and 5.2 percent in March. This is down from its recent peak of 6.3 percent in June 2003. While higher than the nadir of 3.8 percent of April 2000, the lowest rate for the years immediately prior to September 2001, it is still low when compared to other recent economic recoveries at this point in the cycle. Consumer confidence index, as measured by the Conference Board, has surged since March 2003 when it dropped to a 10 year low of 61.4 during the invasion of Iraq. In March 2005, it was 97.7, down slightly from the 2004 high of 105.7, reached in July.

Household Appliance Manufacturing Definition

The Household Appliance Manufacturing Industry (NAICS 3352) includes six subsectors. They are Electric Housewares and Household Fan Manufacturing (NAICS 335211), Household Vacuum Cleaner Manufacturing (NAICS 335212), Household Cooking Appliance Manufacturing (NAICS 335221), Household Refrigerator and Home Freezer Manufacturing (NAICS 335222), Household Laundry Equipment Manufacturing (NAICS 335224), and Other Major Household Appliance Manufacturing (NAICS 335228).

Overview

The U.S. appliance industry is a relatively mature consolidated industry with four companies, Whirlpool, General Electric (GE), Maytag, and Electrolux, producing most of the major household appliances sold domestically. Electrolux, a Swedish company, produces Frigidaire and Westinghouse brand appliances in the United States. These manufacturers have traditionally accounted for nearly all the cooking, refrigeration, and laundry appliances sold. However, with globalization, more foreign producers are now making inroads into the market. In addition, there are many other domestic companies specializing in narrow lines of these appliances or in other appliance categories such as vacuum cleaners or small household appliances. The leading small appliance manufacturers are NACCO (Hamilton Beach/Procter-Silex), Applica (Windmere/Black & Decker), and American Household (Sunbeam).

The two global market leaders are Whirlpool and Sweden=s Electrolux with a strong presence in most of the important markets around the world. Other well-known manufacturers with a strong international market position include GE, BSH Bosch und Siemens Hausgeraete, Haier, Matsushita, Samsung, and LG Electronics.

Since the basic features of many of the appliances now being produced have changed relatively little in recent decades, there is often little to differentiate one manufacturer=s products from another=s. The result has been intense price competition as appliances have tended to be considered more and more like commodities by many consumers. To counter this trend, manufacturers advertise heavily and continue to introduce appliances with new features in an effort to differentiate their products from the competition.

U.S. household appliance product shipments were an estimated $23.4 billion in 2004, up 3.9 percent from 2003 shipments. Total industry employment, which has been declining steadily since 2000 when it was 99,500, dropped an additional 3 percent in 2004 to 81,500. The downward trend in employment is expected to continue as several major appliance manufacturers, including Whirlpool, Electrolux, and Maytag, have recently announced domestic employment reductions. Until recently, most of the industry=s employment cutbacks had been restricted to the small appliance producers.

Energy Efficiency

Since 1987, the U.S. Department of Energy (DOE) has had authority to set national energy efficiency standards for major household appliances including refrigerators, water heaters, dishwashers, laundry equipment, and ranges and ovens. In recent years, it has tightened standards for several product

categories. In 2000, new energy standards prohibited standing pilot lights on all conventional gas ranges except separate conventional gas cooktops and ovens without an electrical cord.

Revised standards for refrigerators and freezers became effective in 2001. The new standards reduced energy consumption by up to 30 percent depending on class of product. Increased efficiencies were possible from increased insulation, improved compressor efficiency, reduced condenser and evaporator motor power, reduced gasket heat leak, and improvements in evaporator fan efficiency.

The first stage of new clothes washer energy standards went into effect on January 1, 2004. A second higher level standard will become effective on January 1, 2007. The initial level of the standards is a 22 percent reduction in energy consumption over the old standard while the second level is a 35 percent reduction. The new standards will also save significant quantities of water. These new efficiency standards can be met by either top or front loading machines. The savings result from a variety of design changes, such as higher spin speeds, more efficient use of hot water, more sensitive clothes technologies, more efficient motors, and the increased use of spray rinse cycles. The new standards should not compromise the cleaning ability or reliability of washing machines.

Also in January 2004, new energy standards for water heaters became effective. The standards can be met using heat traps and improved insulation on both gas and electric water heaters and an improved heat exchanger (flue baffle) on gas water heaters. These improvements result in a four percent increase in energy efficiency for electric and an eight percent increase in energy efficiency for gas water heaters.

In addition to energy efficiency standards, DOE and the U.S. Environmental Protection Agency have created the Energy Star label, which is used to identify the more energy-efficient products on the market. Appliances have been eligible to carry the label since 1996. Since Energy Star-labeled appliances significantly exceed existing DOE energy standards, consumers can be assured that such an appliance will have a substantially reduced lifetime operating cost.

The voluntary Energy Star label is in addition to the Energy Guide label which is required by the U.S. Federal Trade Commission. That label, which has been required since 1980, shows the estimated kilowatt-hours of electricity consumed per year on a horizontal graph, with the end points showing the highest and lowest amounts consumed by models of similar size. The estimated annual operating cost also is provided. Rising energy prices have encouraged consumers to purchase more efficient appliances. Another incentive has been the rebates that some local utilities offer for purchasing of energy efficient appliances.

Consumer demand for appliances increased in 2004 due to several positive factors including interest rates near historic lows, high levels of housing starts and resales of existing housing, low unemployment, and improving consumer confidence. While the demand for household appliance shipments was quite favorable at the beginning of 2005, the outlook for the entire year is not so sanguine, primarily due to rising interest rates. Domestic product shipments are expected to decline about 3 percent in 2005.

Global Market Perspective

Foreign trade has long been more important for the small appliances since they are generally more labor intensive to produce and with lower relative transportation costs. In several categories of small appliances, such as irons and hair dryers, imports account for all or nearly all of the products sold at retail. China has been the major supplier of small appliances for several years. Until recently, most of the major appliances imported were generally done so by the domestic manufacturers under their own names. Now, several low-cost foreign manufacturers, such as China=s Haier and South Korea=s Samsung and LG Electronics have introduced lines of major appliances into the U.S. market under their own names. Several have also established plants in the United States or Mexico. This has put the U.S. industry=s prices and profits under increased pressure. The industry already faces generally higher costs for taxes, steel, pensions, and healthcare.

A major factor in the globalization trend in recent years has been the reduction in tariffs in many countries. These reductions have resulted in the complete elimination of U.S. tariffs on many of the larger appliances with the remaining tariffs on these appliances ranging from 1.4 to 3.4 percent. U.S. tariffs for small appliances range from 2 to 5.3 percent.

Also encouraging globalization have been various programs and agreements the United States has instituted to provide special tariff treatment. The first major program was the Generalized System of Preferences (GSP), implemented in 1976, which exempted certain products from designated developing countries from U.S. import tariffs. The globalization trend was later encouraged by the North American Free Trade Agreement (NAFTA), implemented in 1994. Since that agreement became effective, there has been substantial shifting of manufacturing and trade between the United States, Canada, and Mexico. Canada and Mexico now account for 61 percent of U.S. appliance exports and 26 percent of U.S. appliance imports.

In addition to NAFTA, the United States has negotiated or is in the process of negotiating 14 bilateral free-trade agreements. The agreements are with the Andean group, Australia, Bahrain, Chile, Dominican Republic-Central America, Israel, Jordan, Morocco, Panama, Singapore, the Southern African Customs Union, Thailand, the United Arab Emirates, and Oman. These countries range from developing to developed, located on several continents. These agreements are expanding U.S. trade opportunities in Africa, Asia, the Middle East, and Latin America. While each of these markets tends to be small, in total they represent a sizable amount. In 2004, these countries accounted for 8.9 percent of U.S. appliance exports. On the other hand, these countries are generally not major suppliers to the U.S. market, accounting for only 1.4 percent of total appliance imports in 2004.

More ambitious are the ongoing negotiations for a Free Trade Area of the Americas (FTAA) and the Doha World Trade Organization (WTO) negotiations. The FTAA negotiations would eliminate most tariffs with the Latin American countries while the Doha negotiations seek to eliminate or cut tariffs on a wide range of industrial products between the WTO=s 148 member countries. If either or both negotiations are successful, they would be an important stimulus to U.S. exports since many of our trading partners have appliance tariffs substantially higher than U.S. tariffs.

Industry Developments

Domestic appliance industry consolidation has generally slowed in recent years, with fewer acquisition targets remaining, unlike Europe or Asia. Some recent domestic and international acquisitions of note were Maytag=s 2001 purchase of the Amana; Whirlpool=s 2002 purchases of Polar, a Polish appliance manufacturer, and the remaining 51 percent of Vitromatic, its appliance joint venture in Mexico; Hong Kong based Techtronic Industries 2003 purchase of Royal, a U.S. vacuum cleaner company; and New Zealand based Fisher & Paykel=s 2004 purchase of Dynamic Cooking Systems, a U.S. manufacturer of cooking appliances.

Of growing attention has been the continued shifting of U.S. production offshore. In late 2004, Maytag closed its Galesburg, IL refrigerator plant and shifted most production to a new plant in Reynosa, Mexico. Similarly, Electrolux is scheduled to begin closing its refrigerator plant in Greenville, Michigan in late 2005 and shift production to a new plant in Juarez, Mexico. Meanwhile, GE is moving a production line of refrigerators from Bloomington, IN to Celaya, Mexico. It should be noted the Mexico may not be the final destination for all the production jobs transferred from the United States as some appliance production there was recently shifted to China due to lower costs.

Both Whirlpool and GE have had substantial manufacturing operations in Mexico for several years. Whirlpool began manufacturing in Mexico in 1988 with its joint venture, Vitromatic, with Vitro S.A. Following its recent purchase of Vitro=s share, Whirlpool announced plans to increase production substantially by Vitromatic, possibly doubling production of refrigerators, stoves, and washing machines. Whirlpool currently exports about 35 percent of its Mexican production to neighboring countries. GE began Mexican appliance production in 1987 when it entered a joint venture agreement with Controledora Maba.

A similar migration of appliance production from high labor-cost countries to low labor-cost countries is occurring in Europe and Asia. Several plants have closed in Western European countries such as Germany, Sweden, and Great Britain with production shifted to countries in Eastern Europe such as Hungary, Poland, and the Czech Republic. Likewise, several Asian appliance producers in countries such as Japan and South Korea are shifting production to China.

Appliance companies have long purchased appliances to be sold under their own brand from other domestic manufacturers to fill out a line or for cost reasons. International agreements of this type have been common for small appliances but are now also becoming more common for the larger appliances. Maytag and GE recently agreed to source refrigerators from Daewoo Electronics and Samsung Electronics, respectively, both South Korean corporations. In a similar move, Whirlpool is now sourcing some dishwashers from Fisher & Paykel of New Zealand.

In addition to shifting appliance production offshore to lower costs, some appliance companies are also shifting certain back-office operations offshore. For example, some have shifted engineering, computer programming, accounting, and call centers to developing countries to take advantage of low-cost, high-quality talent.

Domestically, several factors have combined to create a very price competitive atmosphere at the retail level. Sears has traditionally been the leading appliance retailer. The growth of several other large chain stores selling appliances, such as Home Depot, Lowe=s, and Best Buy, has shifted negotiating power away from the manufacturer to the retailer. These retailers now offer several manufacturers= appliances side by side on the retail floor where consumers can make easy comparisons. Since these retailers also list their appliance offerings on their websites with product and price information, consumers can make comparisons before leaving their homes. The result is even more of a squeeze on appliance manufacturers= selling prices and profits.

Steel and Raw Material Prices

With increased globalization, it is important that a company source its raw materials and parts at low prices if it hopes to remain price competitive in its home and foreign markets. Therefore, recent price increases for steel have been of concern for the industry.

On March 5, 2002, temporary safeguard tariffs on imports of certain steel categories were imposed by the United States. The tariffs were established for three years, initially at increases of eight to thirty percent, with the tariffs for each category declining annually. The safeguards were meant to give the domestic steel industry time to adapt to a large influx of foreign steel.

The safeguard action proved to be quite controversial. The European Union, Japan, Brazil, South Korea, Norway, New Zealand and Switzerland responded by lodging a complaint with the World Trade Organization (WTO). Many domestic steel users, including the household appliance industry, complained bitterly about the tariffs, saying the negative impact of the action on steel consumers would be much greater than any benefit to steel producers. Many users reported customers lost to overseas competitors due to higher prices, reduced employment, steel suppliers breaking or modifying long-term contracts, and a squeeze on profits. In July 2003, a WTO dispute panel found that the United States had failed to prove that imports had harmed the domestic steel industry; therefore there was no justification for the tariffs. In November 2003, a WTO appellate body dismissed a U.S. appeal and upheld the earlier ruling against the temporary U.S. duties.

The WTO ruling held that the complainants had a right to impose retaliatory duties on imports from the United States. The EU threatened to impose import sanctions of up to $2.2 billion on politically sensitive US products such as orange juice, apples, motorcycles, and textile products unless the tariffs were lifted. The Japanese promised similar action. The Bush administration averted a potential trade war by lifting the tariffs on December 5, 2003, declaring that the safeguard measures had achieved their purpose by allowing time for the steel industry to consolidate and restructure.

However, despite the removal of the tariffs, other factors have kept prices high. An improving global economy in 2004, plus China=s seemingly insatiable appetite for commodities like steel and oil, have caused global commodity prices to rise steeply. During the first six months of 2004, global steel prices rose approximately 36 percent. Also joining in the rising prices were copper, up 20 percent, and aluminum, up 13 percent. Some temporary relief came in mid-2004 when China imposed credit restrictions and some price controls to slow its manufacturing and construction industries. This move

plus increasing Chinese steel production put some downward pressure on global steel prices. However, commodity prices remain strong. Oil prices, for example, reached $57 per barrel in March 2005 while copper reached $1.50 per pound, a 16 year high. While U.S. steel and energy prices are down from their peaks, high prices continue to place appliance industry sales and profits under pressure.

In 2004, appliance imports increased approximately 9 percent to $11.9 billion. The leading suppliers were China, Mexico, South Korea, Canada, and Germany. China accounted for 45.9 percent of total imports in 2004 compared to 44.6 percent in 2003. It continues to increase in market share due primarily to its low labor rates. China, long predominate in small appliances, is now exporting larger appliances such as refrigerators. Proximity to the U.S. market has benefited Mexican and Canadian appliance shipments to the United States due to relatively low transportation costs. However, even this proximity has not been enough to stop some production from shifting from Mexico to China.

U.S. exports of appliances were $2.7 billion in 2004, an increase of 8 percent from 2003. The leading U.S. export markets are Canada, Mexico, United Kingdom, and Germany. Trade figures reflect the ongoing global market shifts. Between 1997 and 2004, appliance imports increased 104 percent while exports decreased 9 percent. Imports were over 4 times exports in 2004, with imports accounting for 36.5 percent of apparent consumption.

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